

CLAIMS:

What is claimed is:

1. A method for organizing a virtual meeting between a plurality of attendees on a computer network, the method comprising the steps of:

selecting a meeting date, a meeting start time, meeting duration, and a meeting code, storing said meeting date, said meeting start time, said meeting duration, and said meeting code in a meeting file;

storing said meeting file in a memory accessible to the network;

specifying at least one meeting attendee;

communicating a meeting invitation to said at least one attendee over the network, said invitation including at least said meeting date, said meeting start time, said meeting code, and a meeting entry portal; and,

allocating network resources for said meeting, said network resources sufficient to communicate a plurality of real time data streams over the network, said plurality of real time data streams including at least one real time video data stream and at least one real time audio data stream.

2. A method as defined by claim 1 and further including the step of determining a required bandwidth for the meeting and storing said required bandwidth in said meeting file.

3. A method as defined by claim 1 wherein each of said at least one meeting attendees will be streaming a plurality of real time data streams to the meeting, and wherein the method further includes the step of determining the bandwidth required for each of said plurality of real time data streams.

4. A method as defined by claim 3 wherein said at least one meeting attendee is a plurality of meeting attendees, and further including the step of determining the total bandwidth required for the virtual meeting by summing

the bandwidth required for each of said plurality of real time data streams from each of said plurality of attendees.

5. A method as defined by claim 4 wherein said plurality of real time data streams includes at least a plurality of video data streams and at least one audio data stream.

6. A method as defined by claim 1 and further including the steps of determining the total bandwidth available to communicate with said at least one meeting attendee.

7. A method as defined by claim 6 wherein the step of determining the total bandwidth to communicate with said at least one meeting attendee includes determining whether a second virtual meeting may consume bandwidth resources of said attendee.

8. A method as defined by claim 7 wherein said at least one attendee is linked to the network by a linkage shared by an attendee of said second virtual meeting, said second virtual meeting being at least partially concurrent with said first virtual meeting.

9. A method as defined by claim 6 wherein said at least one attendee includes a plurality of attendees, and further including the steps of:

determining what linkage each of said plurality of attendees is connected to the network with; and,

determining whether any additional of said plurality of attendees are connected to the network over said linkage.

10. A method as defined by claim 6 wherein the virtual meeting is the first virtual meeting and further including the steps of:

determining what linkage said at least one attendee is connected to the network with;

determining whether any other virtual meetings are occurring at least partially concurrently with the first virtual meeting; and,

determining whether any attendees of any of said other virtual meetings are connected to the network over said linkage.

11. A method as defined by claim 1 wherein said at least one meeting attendee includes a plurality of meeting attendees, and further including the steps of determining the total required bandwidth for the meeting, of determining the total bandwidth of each of said plurality of meeting attendees, and of limiting said meeting attendees to only those having sufficient bandwidth to participate in said meeting.

12. A method as defined by claim 1 wherein said at least one meeting attendee includes a plurality of meeting attendees, and further including the steps of determining the total required bandwidth for the meeting, of determining the total bandwidth of each of said plurality of meeting attendees, and of directing any attendees that do not have sufficient bandwidth available to link to a subset of said plurality of data streams being communicated during the meeting.

13. A method as defined by claim 1 wherein said meeting file further includes at least one application to be used during the meeting.

14. A method as defined by claim 1 wherein said invitation is an executable file that upon execution takes all steps necessary to connect to said virtual meeting.

15. A method as defined by claim 1 wherein said meeting file further specifies a display template for displaying video streams during the meeting.

16. A method as defined by claim 15 wherein said display template includes application geometry for displaying images.

17. A method as defined by claim 1 and further including the step of selecting a display template for displaying at least one video data stream during the meeting.

18. A method as defined by claim 1 wherein said at least one attendee comprises a plurality of attendees, and further including the step of receiving a request to enter the meeting from a first of said plurality of attendees, wherein the step of allocating said network resources for the meeting is performed after receiving said request to enter from said first of said plurality of attendees.

19. A method as defined by claim 18 and further including the steps of linking each remaining of said plurality of users to said meeting resources when a request for entry is received from said remaining of said plurality of users.

20. A method as defined by claim 1 wherein said network resources include at least one network interface having an address, and further including storing said at least one network interface address in said meeting file.

21. A method as defined by claim 1 wherein the step of communicating said meeting invitation to at least one meeting attendee includes communicating said meeting invitation to a plurality of meeting attendees.

22. A method as defined by claim 1 wherein the step of allocating said network resources for said meeting comprises selecting said network resources from a list of available network resources.

23. A method as defined by claim 1 wherein said network resources comprise one or more network interface locations.

24. A method as defined by claim 23 wherein said network interface locations comprise port numbers.

25. A method as defined by claim 1 wherein said network resources comprise at least one IP address for a network interface connected to the network and at least one port.

26. A method as defined by claim 1 wherein said network resources include at least one network interface address, and further including the step of storing said at least one network interface address in said meeting file.

27. A method as defined by claim 1 wherein said meeting entry portal is a URL.

28. A method as defined by claim 1 and further including the step of specifying an early join time before said start time before which said at least one attendee cannot join the meeting and a late time after which said at least one attendee cannot join the meeting.

29. A method as defined by claim 1 and further including the step of providing a network address for each of said at least one meeting attendees.

30. A method as defined by claim 1 and further including the steps of creating a pass key for entry to said meeting, of including said pass key with

said invitation communicated to said at least one attendee, and of storing said pass key in said meeting file.

31. A computer program product for organizing a virtual meeting between a plurality of attendees on a computer network, the program product including computer executable instructions stored on a computer readable medium that when executed cause the computer to:

receive a meeting code, a meeting date, a meeting start time, and the identity of a plurality of meeting attendees from a user submitted over the network;

store said meeting code, said meeting start time, and said identity of said plurality of meeting attendees in a meeting file in a memory accessible to the network;

communicate an invitation to each of said plurality of meeting attendees, said invitation including at least said meeting start time, said meeting code, and an entry portal for entering the meeting;

receive a first request to enter the meeting from a first of said plurality of meeting attendees after said first attendee has connected to said entry portal, allocating at least one network interface location for the meeting after receiving said first request, said at least one network interface location sufficient to link a plurality of real time video streams and at least one real time audio stream between each of said plurality of meeting attendees, storing said at least one network interface location in said meeting file, linking said first meeting attendee to said network interface; and,

receiving a subsequent request from a second of said plurality of meeting attendees, and linking said second meeting attendee to said network location.

32. A computer program product as defined by claim 31 wherein said invitation comprises an executable file that when executed performs steps

sufficient to connect said each of said plurality of attendees to said virtual meeting.

33. A computer program product as defined by claim 31 wherein the program instructions further cause the computer to receive a display template selection, said display template including at least a specified display location and size for at least one video stream, and to use said display template during the meeting.

34. A computer program product as defined by claim 31 wherein the program instructions further cause the computer to determine the total bandwidth required to participate in said meeting, and the bandwidth available to communicate with each of said plurality of meeting attendees.

35. A computer program product as defined by claim 31 wherein the program instructions when executed further cause the computer to determine the bandwidth resources for each of said plurality of meeting attendees.

36. A computer program product as defined by claim 35 wherein the program instructions cause the computer to determine what linkage connects each of said plurality of attendees to the network with, and whether said linkage is shared by any other of said plurality of attendees or shared by attendees of a second meeting occurring concurrently with said meeting.

37. A method for determining the bandwidth resources for attendees of a virtual meeting conducted over a network, including the steps of:

determining what attendees will attend each of a plurality of meetings;

determining what linkages each of said attendees of each of said plurality of meetings is connected to the network with;

determining whether any of said linkages are shared linkages that are shared by attendees of different of said plurality of meetings that are occurring at least partially concurrently with one another, and if they are shared linkages determining what bandwidth is available over said shared linkage for each of said attendees of different meetings.